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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,900	07/27/2000	Christian Buchler	RCA 90 , 264	2547

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Joseph S Tripoli  
Patent Operations  
Thomson Multimedia Licensing Inc CN 5312  
Princeton, NJ 08543-0028

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/626,900	BUCHLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kim-Kwok CHU	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Remarks filed on 22 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7 and 15 is/are rejected.
- 7) ☒ Claim(s) 2-6,8-14 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Remarks***

1. Applicant's Remarks filed on August 22, 2005 have been fully considered.

(a) Applicant states that the prior art of Nagasawa's header identification unit only refers to "certain ones of the headers" (page three of the Remarks, lines 20-21). Accordingly, Nagasawa's header identification 19 identifies headers and Applicant does not define how many headers are required to identify.

(b) Applicant states that the prior art of Nagasawa's tracking sensor 11 does not anticipate the claimed track crossing detector (page 3 of the Remark, last paragraph, page 4 of the Remark, first paragraph). Accordingly, Applicant's statement of various features performed by his track crossing detector are not defined in his claim. In fact, Applicant only claims a track crossing detector and the prior art of Nagasawa's tracking sensor 11 detects alternative grooves/lands signals.

(c) Applicant states that his intermediate track detector in claim 1 is not anticipated by the adder 28 of Nagasawa (page 4 of the Remarks, third paragraph; page 5 of the Remarks, second paragraph). Accordingly, the prior art of Nagasawa's tracking error signal output means 28 is connected to outputs of the header identification unit 19, the track crossing

detector 11 and the header sequence detector 22 as in Applicant's claimed 1. Furthermore, Applicant points out that the prior art of Nagasawa's intermediate track detector receives analog signals (page 5 of the Remarks, second paragraph). Accordingly, a signal in analog or digital form is not defined in claim 1.

(d) Applicant mentions the operational properties of Nagasawa's adder 28 and connecting point detector 19 (page 5 of the Remarks, paragraph 3 and 4). Accordingly, the operational details of adder 28 and connecting point detector 19 are not defined in Applicant's claim limitations.

(e) With respect to independent claim 15, Applicant states that Nagasawa does not anticipate "checking a signal 16 derived from detector elements 11 for the presence of signal components which indicate the lateral offset of the header markings" (page 5 of the Remarks, last paragraph). Accordingly, tracking error signal 28 which indicate a lateral/tracking offset is obtained from signal 16 as illustrated in Nagasawa's Fig. 4. In fact, signal 16 is checked/sampled.

**Claim Rejections - 35 USC § 102**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -  
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

3. Claims 1 and 7 are rejected under 35 U.S.C. § 102(e) as being anticipated by Nagasawa (U.S. Patent 6,069,869).

Nagasawa teaches a land/groove detecting apparatus having all of the elements and means as recited in claims 1 and 7. For example, Nagasawa teaches the following:

(a) as in claim 1, means 10 for reading or writing data markings of an optical recording medium 8 having data markings arranged along a track (Fig. 4);

(b) as in claim 1, means 10 for reading or writing header markings 4 arranged laterally offset with respect to the center of the track (Figs. 3A, 3B and 4; optical head 10 read/write wobble headers);

(c) as in claim 1, an intermediate track being arranged between two adjacent tracks (Fig. 3A; groove tracks and land tracks are alternative arranged);

(d) as in claim 1, a header identification unit 19 (Fig. 4; column 12, lines 16-20; header's connection region is identified);

(e) as in claim 1, a header sequence detector 22 for detecting a sequence of the laterally offset header markings (Figs. 3A and 4; column 12, lines 21-26; one header after another header is detected);

(f) as in claim 1, a track crossing detector 11 (Figs. 4, 15A and 15B; detector 11 detects tracks and its crossing points; column 12, lines 2-11);

(g) as in claim 1, an intermediate track detector 28 for generating an intermediate track signal (Figs. 4; tracking error signal identifies tracks and provides servo tracking; column 19, lines 42-52);

(h) as in claim 1, the intermediate track detector 28 is connected to outputs of the header identification unit 19, of the track crossing detector 11 and of the header sequence detector 22 (Fig. 4); and

(i) as in claim 7, the header identification unit 19 evaluates a summation signal 15 of the detector signals (Fig. 4).

4. Claim 15 is rejected under 35 U.S.C. § 102(e) as being anticipated by Nagasawa et al. (U.S. Patent 6,069,869).

Nagasawa teaches a land/groove detecting method having all of the steps as recited in claim 15. For example, Nagasawa teaches the following:

(a) as in claim 15, reading or writing data markings of an optical recording medium 8 (Fig. 4);

(b) as in claim 15, the data markings arranged along a track 1a, 2b and header areas 4 containing one or more header marking 5 (Figs. 3A and 3B);

(c) as in claim 15, the header markings 5 arranged with laterally offset with respect to the center of the track (Figs. 3A and 3B);

(d) as in claim 15, an intermediate track being arranged between two adjacent tracks (Figs. 3A and 3B; groove tracks and land tracks are alternative arranged);

(e) as in claim 15, checking a signal 16 derived from detector elements 11 for the presence of signal components which indicate the lateral offset of the header markings (Figs. 1 and 5; wobble pits are detected);

(e) as in claim 15, if the signal components are present, determining the succession information about the signal components originating from differently arranged header

markings within the header areas (Fig. 4; a sequence of headers are detected);

(f) as in claim 15, generating a signal 28 corresponding to a track crossing frequency (Fig. 4); and

(g) as in claim 15, generating the intermediate track signal from the succession information and the signal corresponding to the track crossing frequency (Fig. 4; tracking error generates a tracking servo signal which tracks the intermediate track or track jump).



***Allowable Subject Matter***

5. Claims 2-6, 8-14 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claim 2, the prior art of record fails to teach or fairly suggest a header identification unit, which comprises a high-frequency path, low-frequency path and a signal detector, and has a track error signal applied to it.

As in claim 3, the prior art of record fails to teach or fairly suggest a header sequence detector, which comprises envelope detectors, to which a track error signal is fed, and has outputs connected to a comparator.

As in claim 4, the prior art of record fails to teach or fairly suggest a header sequence detector having a phase detector, which is fed with signals derived from detector elements of a multi-zone detector of the apparatus.

As in claim 5, the prior art of record fails to teach or fairly suggest a track crossing detector which has a track error signal applied to it, and which comprises one of a phase shifter and a peak value detector.

As in claim 8, the prior art of record fails to teach or fairly suggest a validity detector for outputting a validity signal, and a track crossing frequency detector for supplying a track cross signal to the validity detector.

As in claim 16, the prior art of record fails to teach or fairly suggest a step of detecting the track crossing frequency, and, if a limit value is undershot, generating an invalidity signal, which is cancelled only when signal components which are typical of header areas are present once again.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

**7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).**

**A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action**

8. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application should be directed USPTO Contact Center (703) 308-4357; Electronic Business Center (703) 305-3028.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kim-Kwok CHU  
Examiner AU2653

October 25, 2005  
(571) 272-7585

*ke* 10/25/05.

*William Korzuch*  
WILLIAM KORZUCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600